

Application No. 10/002073

REMARKS/ARGUMENTS

Applicant submits this Amendment and Response to respond to the Office Action dated August 22, 2005. Claims 1, 5, 7, 10, 14-16, 19, 20, 22, and 23 have been amended and Claims 4 and 17 have been canceled without intending to abandon or to dedicate to the public any patentable subject matter. Claim 30 has been added, accordingly, Claims 1-3, 5-16, and 18-30 are now pending.

The Applicant would like to thank the Examiner for the courtesies extended during the telephone interview of October 14, 2005. Prior to the telephone interview, the Examiner was supplied with proposed amendments to the claims. During the interview, differences between the cited art and the claimed invention were discussed. Although no agreement was reached with regards to allowability of the claims, the Examiner indicated agreement with Applicant that none of the cited references disclose a table where maximum processor capabilities are stored. The Examiner stated that additional searching would be required if the proposed amendments were entered. The Examiner also indicated that a Request for Continued Examination would be the quickest way to further prosecution of the pending application.

Claims 22-29 stand rejected under 35 U.S.C. §112, as being indefinite. In the amendments set forth above, Claim 22 has been amended to delete the aspects of those claims found to be indefinite. In view of the amendments to Claim 22, it is submitted that the rejections of Claims 22-29 under 35 U.S.C. §112 should be reconsidered and withdrawn.

Claims 1-29 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,104,721 to Hsu ("Hsu") in view of either U.S. Patent No. 5,925,092 to Swan et al. ("Swan"), U.S. Patent No. 6,314,447 to Lea et al. ("Lea"), or U.S. Patent No. 6,484,265 to Borkar et al. ("Borkar") alone or in combination. In order for a rejection under 35 U.S.C. §103 to be proper, the prior art references relied upon must teach, suggest, or describe each and every element as set forth in the claims. However, all of the limitations set forth in the pending claims are not taught,

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suggested, or described by any of the above mentioned references. Accordingly, reconsideration and withdrawal of the rejections of the claims are respectfully requested.

Claim 1 is generally directed toward a method for dynamically allocating tasks in a computer system. As amended, Claim 1 recites in part, "assigning a maximum computer resource load to each of a plurality of computer platforms, wherein a first of said computer platforms has a first maximum computer resource capability and load and a second of said computer platforms has a second maximum resource capability and load." Claim 1 further recites, "providing a computer resources table, wherein indications of maximum computer resource capabilities for each of said plurality of computer platforms are maintained." Support for the amendments can be found in the specification, for example at page 4, ll. 3-10; page 7, ll. 3-7; and page 14, ll. 8-14. None of the cited references teach, suggest, or describe a table wherein indications of a first maximum computer resource capability for a first computer and second maximum computer resource capability for a second computer are maintained. Furthermore, processors described in Hsu have the same maximum processing capabilities and therefore indications of maximum computer resource capabilities are not stored in a table. Therefore, for at least these reasons, Claim 1 and dependent Claims 2, 3, and 5-14 are not obvious in view of any of the cited references, and the rejections of Claim 1 and dependent claims therefrom should be reconsidered and withdrawn.

Claim 15 is generally directed toward a method for dynamically allocating computer tasks. As amended, Claim 15 recites in part, "dynamically specifying a first maximum capability of a first computer processor; dynamically specifying a second maximum capability of a second computer processor." Claim 15 further recites, "maintaining a computer processor capability table, wherein dynamically adjusted capability values for said first and second computer processors are stored that are related to said first and second maximum capabilities of said first and second computer processors." As noted above, none of the cited references teach, suggest, or describe maintaining a computer processor capability table wherein dynamically adjusted capability values related to maximum processor capabilities are stored. Therefore, for at least these reasons, Claim 15 and

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dependent Claims 16 and 18-21 are not obvious in view of any of the cited references, and the rejections of Claim 15 and dependent claims therefrom should be reconsidered and withdrawn.

Claim 22 is generally directed toward a computer resource allocation system. Claim 22 recites in part,

"at least a first computer platform comprising at least a first computer resource and a second computer platform comprising at least a second computer resource, wherein said at least a first computer platform has a first task type capability and a first resource amount capability, wherein said second computer platform has a second task type capability and a second resource amount capability, wherein said first and second task type capabilities do not have to be the same, and wherein said first and second resource amount capabilities do not have to be the same."

Amended Claim 22 further recites, "memory including a table, wherein said first and second resource amount capabilities of said first and second computer platforms are stored." Neither Hsu, nor any other cited reference, teaches, suggests, or describes a system that uses a table in memory where different resource amount capabilities of various processors are stored. Therefore, for at least these reasons, Claim 22 and dependent Claims 23-29 are not obvious in view of any of the cited references, and the rejections of Claim 22 and the dependent claims therefrom should be reconsidered and withdrawn.

Hsu, the primary reference, is directed to a dynamic resource allocation multiprocessor communications board. This board has several identical processors that can be coupled to one another in series. When a task needs to be processed, the controller determines if a single processor has the capability to perform the task. If the controller determines the single processor does have the required capabilities, the task is assigned to the processor. If the task requires more processing power than a single processor has, the controller selects at least two of the processors and forms a pipeline processing combination by enabling at least one of the serial ports to couple the at least two selected processors in series. (Hsu col. 3, ll. 41-52.) Hsu therefore meets the processing demands of a given task that the processing power a single processor is unable to meet by linking at least two of the processors in the processing bank to form a pipeline processing combination. (Hsu, col. 3,

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ll. 45-51.) The resource usage status field 178 in Hsu stores "Data representative of the status of the available processing power of the corresponding processor." (Hsu, col. 9, ll. 61-62.) The resource usage status field only tracks the amount of resources that are assigned to a given processor. There is no field for storing the maximum resource capabilities of the processors in Hsu. Furthermore, there is not teaching or suggestion to provide such a field, because the maximum resource capabilities of each processor are the same.

Swan is directed toward satellite systems with synchronized payload processors. A primary processor is used to control and synchronize secondary processors on satellites. Processors are synchronized so that the overall processing power of a satellite cluster is increased. If a particular task cannot be performed by a first selected processor, then a query is used to see if any other processors, alone or in combination, are available to process a task. There is no table described in Swan that the primary processor can reference prior to assigning a task to determine if a particular task can be completed by a particular processor. Rather, the primary processor only receives a failure message if the task is not performed by any of the secondary processors.

Lea is directed toward a system that determines processing capabilities of devices in an electronic network. A host device monitors the network to determine whether a system user has recently connected a new device to the electronic network. The host performs a discovery process by querying relevant configuration information stored in the self-describing data of the new device. Then based on the current load levels of the existing processors, the host re-allocates tasks among the processors and the new device. This load balancing ensures that no device is too heavily loaded. A device application determines whether a hosted device is capable of processing a given task by referencing the self-describing data stored in the hosted device. If a particular hosted device cannot handle a given task, then additional hosted devices are assigned to the task in order to balance the load across multiple processors. The self-describing data of each hosted device is stored in the hosted device to be referenced by other devices as it is required. Lea does not teach, suggest, or

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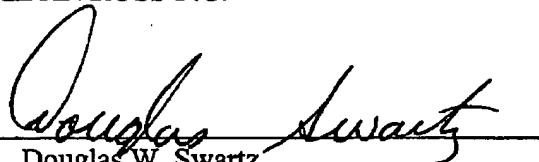
describe using a table in order to determine whether a hosted device has sufficient processor capabilities to perform the required processing task.

Based upon the foregoing, Applicant believes that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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